AMENDMENTS TO THE CLAIMS

Claims 1-31 are pending in the Application and all have been rejected in the Office action mailed September 21, 2006. Claims 1 is amended in this response. Claims 1, 11, 21 and 31 are independent claims. Claims 2-10, 12-20, and 22-30 depend, respectively, from independent claims 1, 11 and 21, respectively.

The following listing of claims replaces all previous versions, and listings, of claims in the Application.

Listing of Claims:

Claim 1. (Currently amended) A method of updating an electronic device from a first code version to a second code version according to a bank order having a penultimate bank, the electronic device having a non-volatile memory comprising a reserved area and a plurality of banks containing the first code version, the method comprising:

moving the contents of the last bank in the bank order to the reserved area of the non-volatile memory;

shifting the contents of each bank in the bank order to the next bank in the bank order beginning with the penultimate bank in the bank order, and proceeding in descending bank order until the contents of the first bank in the bank order has been shifted to the second bank in the bank order;

converting the contents of each bank in the bank order from the first code version to the second code version in a fault tolerant manner beginning with the second bank in the bank order and proceeding in ascending bank order until the last bank in the bank order has been converted, each converted bank being stored in the previous bank in the bank order; and

transforming the contents of the reserved area from the first code version to the second code version in a fault tolerant manner, the second code version being stored in the bank that is last in the bank order.

Claim 2. (Original) The method of claim 1 wherein at least one of the moving and the shifting is performed coincident with at least one preprocessing technique.

Claim 3. (Original) The method of claim 2 wherein the at least one preprocessing technique uses at least one preprocessing instruction.

Claim 4. (Original) The method of claim 2 wherein the at least one preprocessing technique comprises at least one of a bubbles technique, a nodes technique, and a shift region technique.

Claim 5. (Original) The method of claim 1 wherein the updating uses only two writes to each non-volatile memory location being updated.

Claim 6. (Original) The method of claim 1 further comprising:

receiving an update package comprising at least one of at least a preprocessing instruction, an update instruction, and a bank order specification.

Claim 7. (Original) The method of claim 6 wherein the receiving uses a public network.

Claim 8. (Original) The method of claim 6 wherein the receiving uses a wireless network.

Claim 9. (Original) The method of claim 1 wherein at least one of the converting and the transforming uses at least one update instruction.

Claim 10. (Original) The method of claim 1 wherein at least one of the moving and shifting uses an offset of more than one bank.

Claim 11. (Original) A method of updating an electronic device, the electronic device having a non-volatile memory comprising a reserved area and a plurality of banks containing a first code version, the method comprising:

moving the contents of a designated bank to the reserved area of the non-volatile memory, the designated bank thereby becoming an unoccupied bank;

shifting the contents of each of the plurality of banks other than the designated bank from an original bank to an unoccupied bank in a bank by bank fashion, each original bank thereby temporarily becoming an unoccupied bank;

converting the contents of each of the plurality of banks other than the designated bank from the first code version to a second code version in a fault tolerant manner beginning with the contents of the last bank shifted and proceeding in reverse order of the shifting, the second code version of each bank being stored into the original bank from which the first code version of the bank was shifted; and

transforming the contents of the reserved area of the non-volatile memory from the first code version to a second code version in a fault tolerant manner, the second code version being stored in the designated bank.

Claim 12. (Original) The method of claim 11 wherein at least one of the moving, shifting, converting, and transforming is performed according to a specified bank order.

Claim 13. (Original) The method of claim 11 wherein at least one of the moving and shifting further comprises preprocessing the contents of at least one of the plurality of banks.

Claim 14. (Original) The method of claim 13 wherein the preprocessing comprises at least one of rearranging the contents of a bank, updating an address, updating a reference, and updating a branch instruction.

Claim 15. (Original) The method of claim 13 wherein the preprocessing uses at least one of a bubbles technique, a nodes technique, and a shift regions technique.

Claim 16. (Original) The method of claim 13 wherein the preprocessing uses at least one preprocessing instruction.

Claim 17. (Original) The method of claim 11 wherein at least one of the converting and transforming uses at least one update instruction.

Claim 18. (Original) The method of claim 11 further comprising:

receiving an update package comprising at least one of a preprocessing instruction, an update instruction, and a bank order specification.

Claim 19. (Original) The method of claim 18 wherein the receiving uses a public network.

Claim 20. (Original) The method of claim 18 wherein the receiving uses a wireless network.

Claim 21. (Original) A method of updating an electronic device having a non-volatile memory comprising at least a first bank and a second bank, the at least a first bank and a second bank containing a first code version, the method comprising:

moving the contents of the second bank to a reserve bank;

transferring the contents of the first bank to the second bank;

converting the contents of the second bank to an updated version of the first bank;

storing the converted contents of the second bank into the first bank;

transforming the contents of the reserve bank into an updated version of the second bank; and

copying the transformed contents of the reserve bank to the second bank.

Claim 22. (Original) The method of claim 21 wherein at least one of the converting and the transforming uses at least one update instruction.

Claim 23. (Original) The method of claim 21 wherein at least one of the moving and the transferring comprises preprocessing the contents of at least one of the plurality of banks.

Claim 24. (Original) The method of claim 23 wherein the preprocessing comprises at least one of rearranging the contents of a bank, updating an address, updating a reference, and updating a branch instruction.

Claim 25. (Original) The method of claim 23 wherein the preprocessing uses at least one of a bubbles technique, a nodes technique, and a shift regions technique.

Claim 26. (Original) The method of claim 23 wherein the preprocessing uses at least one preprocessing instruction.

Claim 27. (Original) The method of claim 21 wherein at least one of the moving, transferring, converting, storing, transforming, and copying uses a specified bank order.

Claim 28. (Original) The method of claim 21 further comprising:

receiving an update package comprising at least one of a preprocessing instruction, an update instruction, and a bank order specification.

Claim 29. (Original) The method of claim 28 wherein the receiving uses a public network.

Claim 30. (Original) The method of claim 28 wherein the receiving uses a wireless network.

Claim 31. (Original) A method of updating an electronic device from a first code version to a second code version, the electronic device having a non-volatile memory comprising a plurality of banks containing the first code version, the method comprising converting the first code version to the second code version in a fault tolerant manner, wherein the method requires only two writes to each bank being updated.